

INTERNATIONAL SEARCH REPORT

International Application No
PCT/US 98/19794

A. CLASSIFICATION OF SUBJECT MATTER

IPC 6 C12N15/12 C07K14/705 A61K38/17 A61K47/00 A61K35/14
A61K48/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 6 C12N C07K A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|----------|---|---|
| P, X | ZAREMBA S. ET AL.: "Identification of an enhancer agonist cytotoxic T lymphocyte peptide from human carcinoembryonic antigen" CANCER RESEARCH, vol. 57, no. 20, 15 October 1997, pages 4570-4577, XP002096107 see the whole document | 1-7 |
| A | WO 96 26271 A (THERION BIOLOGICS CORP (US); US GOVERNMENT; SCHLOM; PANICALI; TSANG) 29 August 1996 see abstract see page 4, line 1 - page 6, line 17 see page 12, line 1 - page 15, line 13 see page 62 - page 67; claims | 1,7-9, 12,13, 15,18, 19,30, 32-39 |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier document but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

"&" document member of the same patent family

Date of the actual completion of the international search

10 March 1999

Date of mailing of the international search report

25/03/1999

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Macchia, G

INTERNATIONAL SEARCH REPORT

Int. onal Application No
PCT/US 98/19794

| C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT | | |
|--|---|--|
| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
| A | <p>TSANG K.Y. ET AL.: "Generation of human cytotoxic T cells specific for human carcinoembryonic antigen epitopes from patients immunized with recombinant Vaccinia-CEA vaccine"</p> <p>JOURNAL OF THE NATIONAL CANCER INSTITUTE, vol. 87, no. 13, 5 July 1995, pages 982-990, XP000578019</p> <p>cited in the application</p> <p>see the whole document</p> <p>---</p> | <p>1,7-9, 12,13, 15,18, 19,30, 32-39</p> |
| A | <p>WO 92 19266 A (US GOVERNMENT; SCHLOM J.; KANTOR J.) 12 November 1992</p> <p>see page 10, line 14 - page 11, line 18</p> <p>see page 23, line 25 - page 26, line 5;</p> <p>examples 10,11</p> <p>---</p> | <p>8,9,11</p> |
| A | <p>CHEN Y.-Z. ET AL.: "Response of a human T cell clone to a large panel of altered peptide ligands carrying single residue substitutions in an antigenic peptide"</p> <p>THE JOURNAL OF IMMUNOLOGY, vol. 157, 1996, pages 3783-3790, XP002096108</p> <p>cited in the application</p> <p>see abstract</p> <p>---</p> | <p>40</p> |
| A | <p>JAMESON S.C. ET AL.: "T cell receptor antagonists and partial agonists"</p> <p>IMMUNITY, vol. 2, no. 1, January 1995, pages 1-11, XP000600494</p> <p>cited in the application</p> <p>see page 8 - page 9</p> <p>-----</p> | <p>40</p> |

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 98/19794

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
Remark: Although claims 30-39, 42, 43 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compounds/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/US 98/19794

| Patent document cited in search report | Publication date | Patent family member(s) | Publication date |
|---|---------------------|----------------------------|---------------------|
| WO 9626271 A | 29-08-1996 | AU 5024096 A | 11-09-1996 |
| | | CA 2213451 A | 29-08-1996 |
| | | EP 0811062 A | 10-12-1997 |
| WO 9219266 A | 12-11-1992 | AU 674492 B | 02-01-1997 |
| | | AU 2006092 A | 21-12-1992 |
| | | CA 2102623 A | 07-11-1992 |
| | | EP 0584266 A | 02-03-1994 |
| | | JP 6508025 T | 14-09-1994 |
| | | US 5698530 A | 16-12-1997 |